

No. 631,470.

Patented Aug. 22, 1899.

W. W. METZGER.
REVOLVING SIGN.

(Application filed May 22, 1899.)

(No Model.)

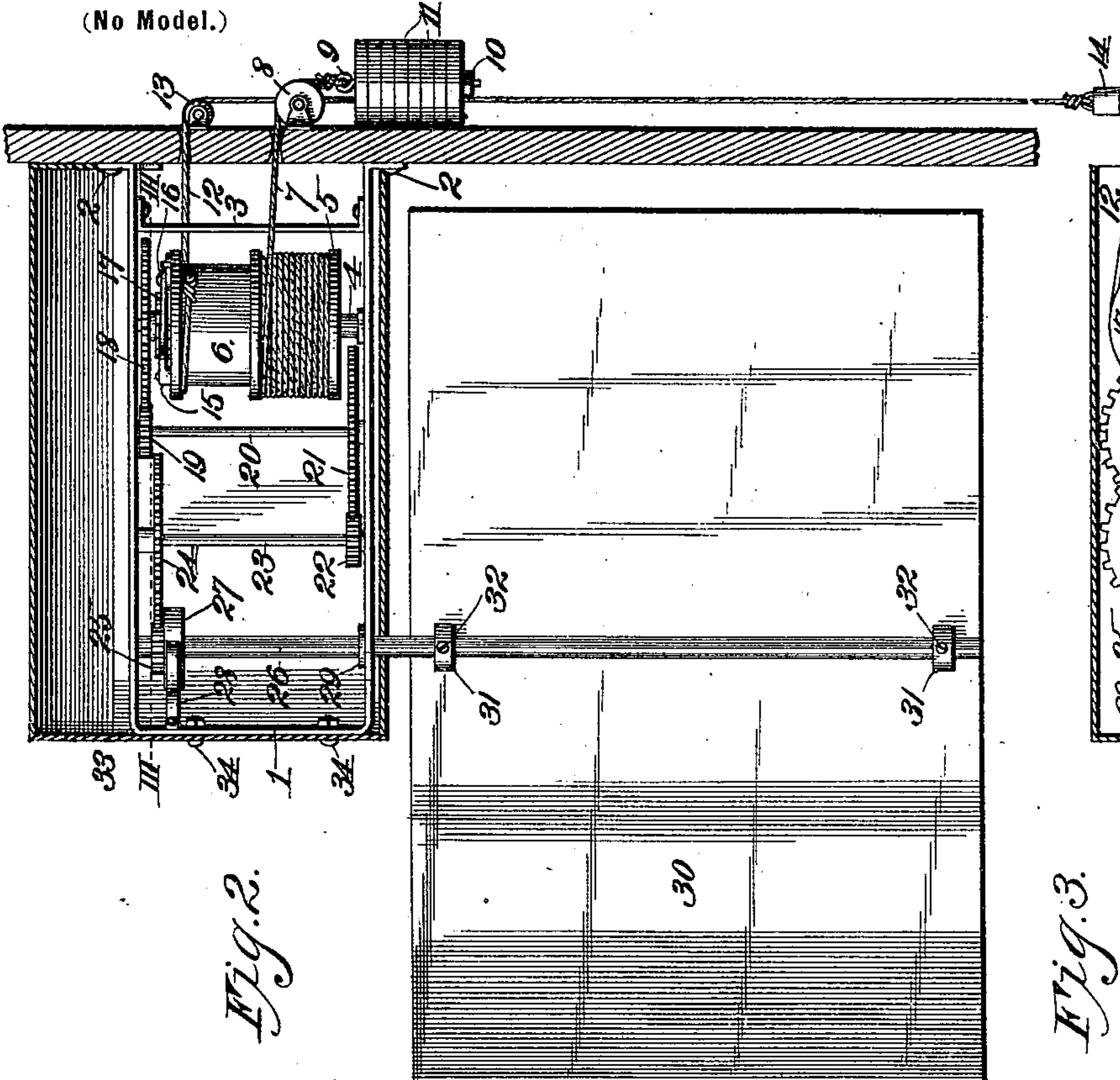


Fig. 2.

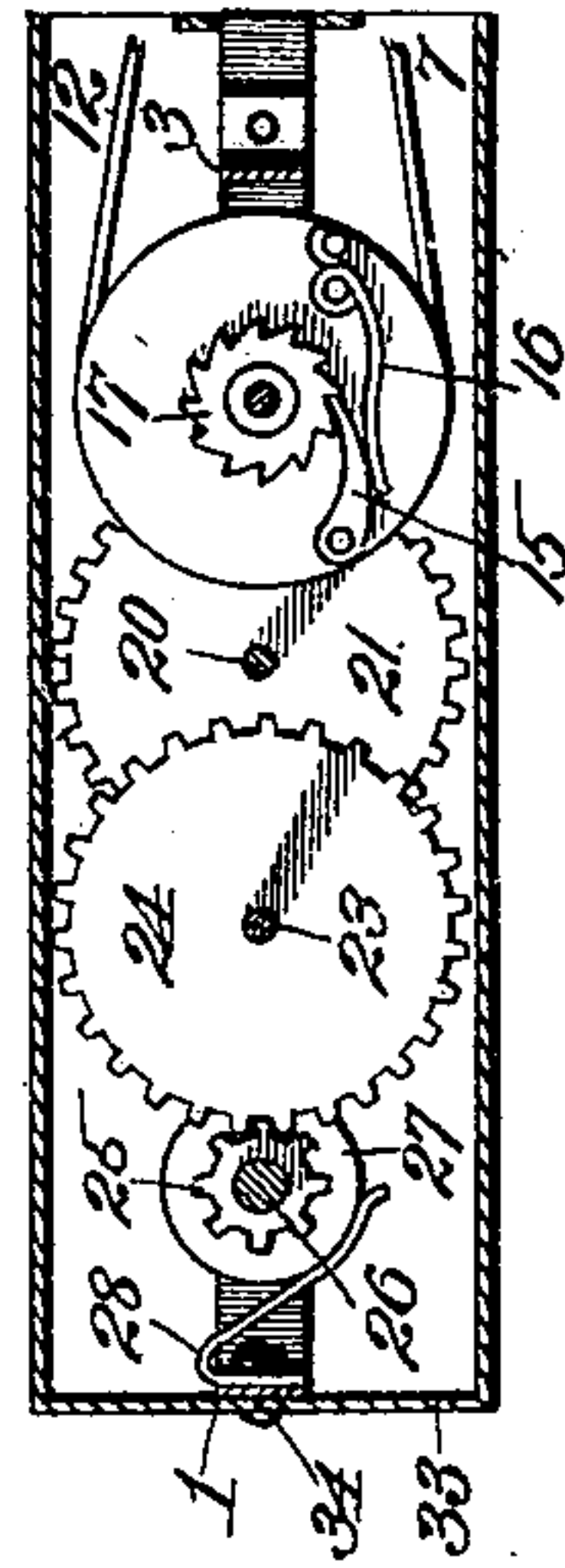
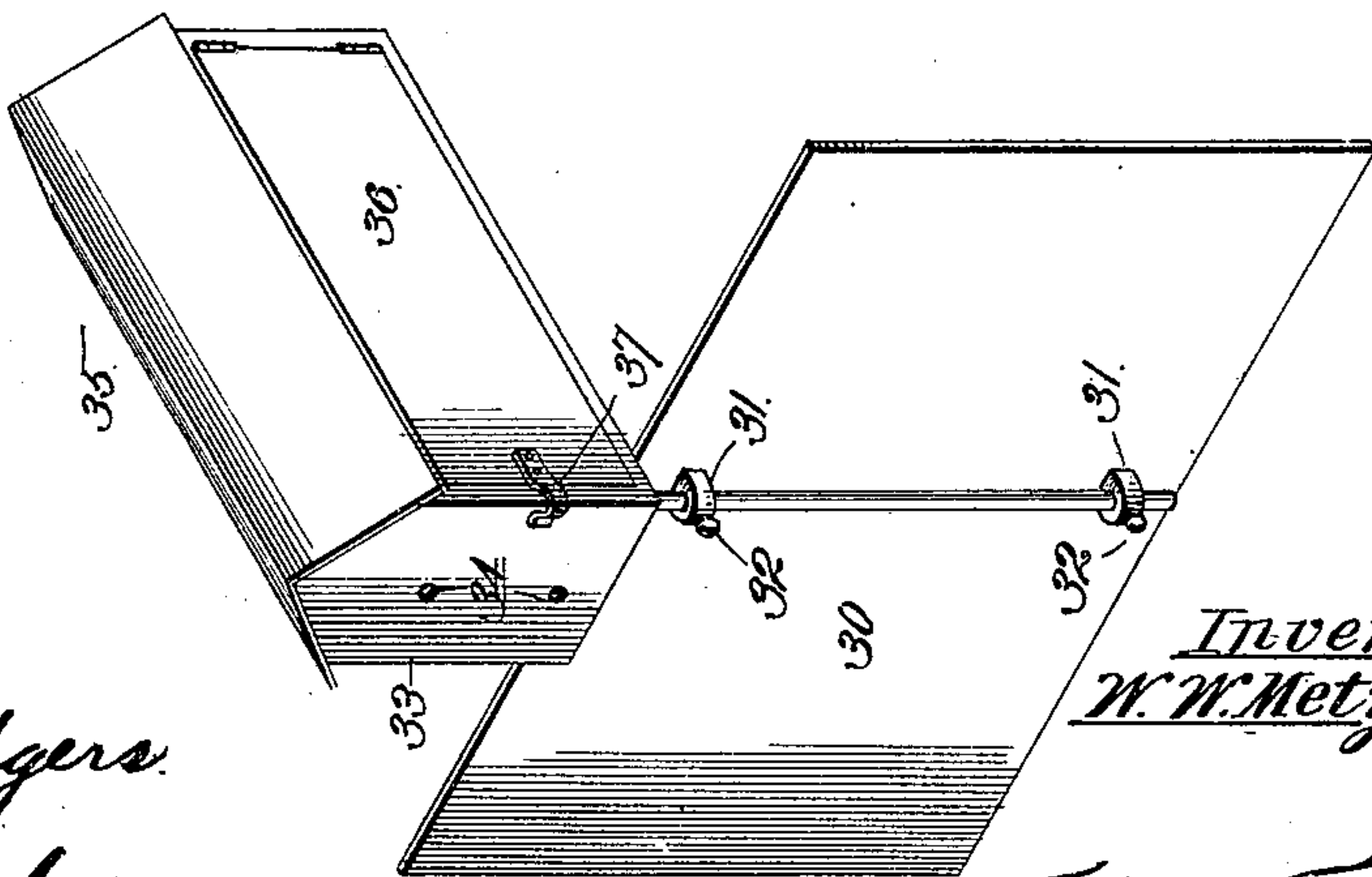


Fig. 3.

Fig. 1.



Witnesses:

H. C. Rodgers.
M. R. Remley.

Inventor.
W. W. Metzger.

By: Higdon, Fisher & Gove Attys.

UNITED STATES PATENT OFFICE.

WILLIAM W. METZGER, OF KANSAS CITY, MISSOURI, ASSIGNOR OF ONE-HALF TO LOUIS J. LONG, OF SAME PLACE.

REVOLVING SIGN.

SPECIFICATION forming part of Letters Patent No. 631,470, dated August 22, 1899.

Application filed May 22, 1899. Serial No. 717,706. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. METZGER, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Improvement in Revolving Signs, of which the following is a specification.

My invention relates to a revolving sign; and my object is to produce a device of this character which will readily catch the eye of a person walking in the immediate vicinity of the sign and hold the attention for a moment or a sufficient length of time for the observer to note the name and the business occupation or other advertising matter thereon.

A further subject is to produce a revolving sign of simple, strong, durable, and inexpensive construction.

With these objects in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed, and in order that the invention may be fully understood I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a revolving sign embodying my invention. Fig. 2 is a vertical section of the same on an enlarged scale. Fig. 3 is a horizontal view taken on the line III III of Fig. 2.

In the said drawings, 1 designates a metal frame of skeleton construction and approximately U form, and said frame is arranged horizontally and secured by bolts 2 or equivalent devices to a window or door casing, the arms of the frame being braced by means of the vertical bar 3. 4 designates a vertical shaft journaled in the arms of said frame, and 5 6 a double drum which is journaled upon said shaft.

7 designates a cable or rope which is secured at its upper end to drum 5 and is adapted to wind or unwind thereon, and said cable extends through an opening in the window or door casing and engages a guide-pulley 8, being secured at its lower end to an eyebolt 9, having a nut 10 at its lower end to support and retain upon the bolt 9 a weight 11, consisting, preferably, of a series of small

weights or disks, to the end that the load upon the drum may be increased or diminished.

12 designates a cable or rope which is secured at its upper end to the drum 6 and extends from the opposite side of the same to that from which the cable 7 extends from drum 5 and is adapted to wind on drum 6 as cable 7 unwinds and be unwound as cable 7 is rewound. The cable 12 also extends through an opening in the casing and engages a guide-pulley 13 and carries at its lower end a light weight 14, the latter being utilized simply to hold the cable taut and to serve as a handle for unwinding the same, as hereinafter explained.

15 designates a pawl pivoted to drum 6 and held by the spring 16, also carried by said drum in engagement with the ratchet-wheel 17, carried rigidly upon the shaft 4, the arrangement being such that the operation of the drum by the weight 11 will impart movement to the shaft 4. The latter also carries a large gear-wheel 18, meshing with the small gear-wheel 19 upon the vertical shaft 20, also journaled in the frame, and said shaft carries a large gear-wheel 21, meshing with a small gear-wheel 22 upon a vertical shaft 23, also journaled in the frame, and said shaft 23 carries a large gear-wheel 24, meshing with a small gear-wheel 25 upon the vertical shaft 26, also journaled in the frame, and this shaft 26 is furthermore provided with a brake-wheel 27, engaged peripherally by the spring or friction-brake 28, secured to the frame, said brake being adapted to assist in preventing the shaft 26 revolving too rapidly. Said shaft is also formed with a collar 29 to hold it reliably in position.

30 designates a revolving sign provided with collars 31, through which extends the lower end of shaft 26, said sign being secured upon the shaft by means of set-screws 32 or their equivalent.

To protect the operative parts of the sign from inclement weather, I provide a housing in the form of a box 33, which is secured by bolts 34 to the frame at its outer end and is seated astride the inner end of the frame, said box being provided with a ridge-roof to deflect rain and prevent the lodgment

thereon of snow, and one side is formed with a relatively large hinged door 36, provided with a spring-catch 37 or other fastening. When it is desired to lubricate the shafts or
 5 replace a broken rope or cable, it can be effected through the door-opening without taking the sign down.

In practice, supposing the weight to be down and the sign perfectly stationary, the person
 10 in charge simply grasps the handle or weight 14 of the rope 12, now wound upon the drum 6, and unwinds said rope by pulling down upon said handle. By this action he rewinds the rope or cable 7 and elevates the weight 11
 15 without operating the sign or any of the shafts, because the pawl in the revolution of the drum slips inoperatively against the teeth of the ratchet-wheel 17. The weight being elevated and the cable or rope released the sign
 20 begins to revolve by the gravitative action of said weight 11; but owing to the fact that the device is geared up very high and that the leverage of the weight on the drum decreases gradually it is obvious that the imperceptible
 25 descent of the weight causes a very slow revolution of the sign, the movement of which is resisted by the air. Furthermore, the weight is so gaged that it requires several hours for it to descend about six feet, and when it at-
 30 tains its limit of descending movement it can be reelevated in an instant by the attendant pulling downward upon the rope or cable 12, as hereinbefore explained, this simple operation again resetting the device for continu-
 35 ous operation for an additional number of hours, so that it will require attention only at infrequent intervals. The weight is prevented from attaining any perceptible momentum by the friction of the brake 28 and
 40 from the fact that as the rope or cable 7 unwinds its leverage upon the drum is diminished.

From the above description it will be ap-

parent that I have produced a revolving sign which possesses the features of advantage 45 enumerated in the statement of invention, and it is to be understood that I reserve the right to make such changes in the detailed construction, arrangement, form, or proportion of the parts as will not be a departure 50 from its spirit and scope.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

A revolving sign, comprising a U-shaped 55 frame suitably supported, a housing inclosing said frame and secured to the same at its outer end and resting upon the frame at its inner end, and provided with a door in one side, a vertical shaft journaled in the frame and pro- 60 jecting through the housing, a sign secured upon the shaft externally of the housing, a second shaft journaled in said frame and geared to the sign-carrying shaft, a ratchet-wheel upon said second shaft, a double drum 65 journaled upon the said second shaft, and provided with a spring-actuated pawl engaging said ratchet-wheel, a pair of pulleys suitably supported, a cable secured at its upper end to one section of said double drum and 70 extending from one side of the same over one of the said guide-pulleys, a weight upon the pendent end of said cable, a cable guided over the other pulley and extending to the other section of the drum at the side opposite 75 to that from which the first-named cable extends and secured to said other section, and provided with a handle at its lower end, substantially as described.

In testimony whereof I affix my signature 80 in the presence of two witnesses.

WILLIAM W. METZGER.

Witnesses:

M. R. REMLEY,
 H. C. RODGERS.